

12-1-1973

The 1973 Iowa Corn Yield Test Report, District 1

William E. Falck
Iowa State University

C. D. Hutchcroft
Iowa State University

Follow this and additional works at: <http://lib.dr.iastate.edu/cornyield>



Part of the [Agriculture Commons](#), and the [Agronomy and Crop Sciences Commons](#)

Recommended Citation

Falck, William E. and Hutchcroft, C. D., "The 1973 Iowa Corn Yield Test Report, District 1" (1973). *Iowa Corn Yield Tests*. 23.
<http://lib.dr.iastate.edu/cornyield/23>

This Report is brought to you for free and open access by the Extension and Experiment Station Publications at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa Corn Yield Tests by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

The 1973 Iowa Corn Yield Test Report, District 1

Abstract

Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn varieties. This is the fifty-fourth consecutive year for the test.

Disciplines

Agriculture | Agronomy and Crop Sciences



- Crops
- Soils
- Climate

THE 1973 IOWA CORN YIELD TEST REPORT

District 1

Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn varieties. This is the fifty-fourth consecutive year for the test.

The presentation of data for the varieties tested does not imply approval or endorsement by the authors or by the agencies sponsoring or conducting the test. Iowa State University approves the reproduction of any table in this publication *only* if no portion is deleted and if the order of the data is not rearranged. Entries in tables 1 and 2 are designated by brand names and variety.

1973 Procedure

Producers of corn seed and Iowa State University were eligible to enter varieties in the Iowa Corn Yield Test. Each producer was allowed a maximum of nine entries per district. All entries had to be available in a quantity of at least 10 bushels.

One hundred varieties were compared in this test. They made up approximately 60 percent of the planted acreage in the district, according to a survey of Iowa corn growers in 1972. Eight open-pedigree varieties were entered by Iowa State University from its corn breeding program. Twenty-nine of the varieties were determined to be widely grown and were entered by Iowa State University. Varieties were considered widely grown if they were planted on 0.5 percent or more of the corn acreage in the district according to the 1972 survey of Iowa corn growers. Iowa State University entered a maximum of five widely grown varieties of any given brand. These entries were given priority over the remaining 63 entries made by seed producers.

Each entry was replicated four times in 4-row plots at planting rates of 20,200 and 25,850 kernels per acre at each location. All locations were machine-planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in the yield data. A moisture determination was made from each plot, and yields were corrected to 15.5 percent moisture for shelled corn.

Prepared by William E. Falck, associate in agronomy, and C. D. Hutchcroft, professor of agronomy and secretary of the Iowa Crop Improvement Association.

IOWA STATE UNIVERSITY of Science and Technology
Cooperative Extension Service,
Agriculture and Home Economics Experiment Station,
Iowa Crop Improvement Association, and the
United States Department of Agriculture, cooperating

How Information Is Presented

The data presented are averages of two locations in 1971, 1972, and 1973. Yield in bushels per acre and percentages of moisture, root lodging, stalk lodging, dropped ears, and stand are shown for all varieties in 1973 and for varieties tested in 1971 and 1972 that were in the 1973 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values shown in tables 1 and 2 represent, in bushels per acre, the amounts of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in tables 1 and 2 are indicators of maturity and natural drying rate. Maturity of varieties entered generally ranged from early to full season. Yield comparisons should be made among varieties of similar maturity.

The performance of selected varieties may be compared between moderate and high populations. An increase in yield from the moderate to the high-population level indicates that the variety could be planted at the higher planting rate for best performance. Some varieties seem to have best yield and less stalk lodging at the lower population. It is important to select varieties having stable performance over a range of environmental conditions. High yields for 2 or more consecutive years indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from your seed corn dealers and from neighbors who have grown these varieties.

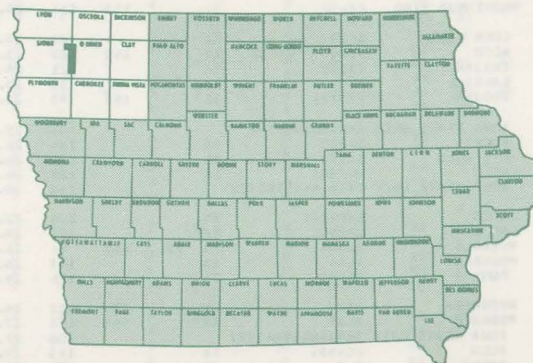


TABLE 1. AVERAGE PERFORMANCE OF VARIETIES TESTED IN DISTRICT 1.
MODERATE POPULATION - 20,200 PLANTING RATE. LSD FOR 1973 YIELD IN BUSHELS IS 14.

BRAND	VARIETY	CROSS	YIELD BU./A			MOISTURE PCT.			ROOT LODGING PCT.			STALK LODGING PCT.			DROPPED EARS PCT.			STAND PCT.		
			1971	1972	1973	1973	1972	1971	1973	1972	1971	1973	1972	1971	1973	1972	1971	1973	1972	1971
SAR	SX95A	SX			109	19.0			0			2			0			90		
RENK	RK6	SX		121	86	19.9	19.2		0	5		1	2		0	0		84	83	
MOEWS	WM220	SX			107	20.3			0			1			0			92		
TROJAN	TXS92	SX			98	20.6			0			0			0			88		
MOEWS	SM223	SX			133	20.7			0			1			0			89		
TROJAN	TXS94	SX			91	21.0			0			9			0			88		
EMBRO	X-1	SX			113	21.3			0			2			0			85		
MOEWS	SM220	SX	126	143	117	21.4	19.0	20.2	0	1	1	4	3	4	0	0	0	88	94	89
IOWA STATE UNIV	SX29(A632XA659)	SX			125	21.4			0			0			0			88		
TROJAN	TXS99	SX		126	99	21.4	19.4		0	0		1	1		0	0		97	85	
TROJAN	TX100	3X			109	21.5			0			3			0			86		
FUNK'S	G4343	SX			117	21.6			0			2			0			86		
IOWA STATE UNIV	SX11(A632XA257)	SX			108	21.7			0			20			0			88		
*PIONEER	3784	SX			106	21.7			0			0			0			90		
ASGROW	RX53	SX			104	21.8			0			3			0			87		
WILSON	1105	SX			81	22.0			0			2			0			77		
SAR	SX122	SX			111	22.1			0			3			0			90		
IOWA STATE UNIV	SX28(A239XA631)	SX			115	22.2			0			8			0			89		
FUNK'S	216191	SX			139	22.3			0			1			0			85		
*PIONEER	3773	SX	115	133	116	22.5	20.7	23.7	0	2	1	3	7	2	0	1	0	81	87	83
FUNK'S	G4404	SX			135	22.6			0			4			0			91		
PIONEER	3764	3X			107	22.6			0			1			0			88		
*PIONEER	3780	SX		143	126	22.6	21.5		0	0		2	2		0	0		90	85	
RENK	RK11AA	SX			126	22.7			1			3			0			88		
ASGROW	RX60	SX			140	22.7			0			3			0			96		
IOWA STATE UNIV	SX30(A632XOH551)	SX			128	23.2			0			6			0			95		
FEDERAL	FX6	SX			133	23.3			0			10			0			93		
ACCO	UC4561	SX		135	126	23.3	24.2		0	1		6	7		0	0		83	85	
FUNK'S	G4366	3X			131	23.5			1			6			0			88		
NC+	33SX	SX	127	147	130	23.5	24.3	23.0	0	7	0	4	3	1	0	0	0	90	94	89
*FUNK'S	G4384A	SX			118	23.8			0			14			0			91		
*DEKALB	XL22	SX		151	129	23.8	25.1		0	2		4	2		0	0		93	96	
END	SX14	SX		153	120	23.8	24.7		0	3		3	3		0	0		90	94	
*SAR	SX200	SX	127	146	128	23.9	23.8	22.6	0	1	2	1	2	0	0	0	0	95	99	91
PIONEER	3722	SX			117	23.9			0			1			0			92		
*CROWS	226	SX	138	143	130	23.9	25.0	24.4	0	3	3	1	4	2	0	0	0	91	92	84
MAYGOLD	F23	SX			114	23.9			0			3			0			87		
*O'S GOLD	SX1100	SX	133	141	129	24.0	24.4	23.7	0	2	0	1	3	3	0	0	0	93	93	92
*SAR	SX132A	SX	116	142	126	24.0	24.6	24.2	0	4	0	2	1	3	0	0	0	96	94	82
*FUNK'S	G4444	SX	133	143	126	24.1	24.8	22.8	0	3	4	2	2	4	0	0	0	92	92	92
*TROJAN	TXS108A	SX			139	24.1			0			1			0			89		
CURRY	TC343	3X			114	24.1			0			3			0			85		
PIONEER	3596	MS			126	24.2			0			0			0			86		
*FARMERS	4425XL	MS		145	129	24.2	24.4		0	1		2	2		0	0		88	94	
SAR	SX252A	SX		141	137	24.2	24.2		0	1		4	3		0	0		93	89	
MOEWS	SM229	SX	132	144	118	24.3	25.2	23.9	0	1	0	4	5	3	0	0	0	86	90	89
CURRY	TC342	3X			127	24.3			0			4			0			95		
HULTING	X537	SX			125	24.3			1			3			0			84		
*PAG	SX69	SX		144	130	24.3	25.1		0	3		4	6		0	0		93	96	
COOP	S201	SX	124	143	130	24.4	25.4	23.2	0	1	2	2	4	2	0	0	0	94	93	87
END	3X35	3X		143	117	24.4	24.4		0	5		3	3		0	0		96	92	
WILSON	2317	MS			132	24.4			0			1			0			80		
WILSON	1016	SX	122	143	125	24.4	25.0	23.3	0	2	1	4	4	1	0	0	0	84	87	85
*TROJAN	TXS102	SX	138	149	142	24.5	24.8	23.2	0	2	1	4	4	2	0	0	0	96	94	93
*CARGILL	870	SX		149	122	24.5	24.6		0	2		3	3		0	0		83	89	
*ASGROW	RX58	SX		146	132	24.5	25.5		0	4		3	2		0	0		91	92	
*CURRY	SC142	SX	136	150	123	24.6	25.4	24.7	1	0	3	2	4	1	0	0	1	90	93	89
CARGILL	875	SX			126	24.6			0			7			0			93		
*FARMERS	4525XL	SX			130	24.6			0			3			0			90		
*NORTHROP KING	PX50A	SX		151	126	24.6	24.1		0	2		2	4		0	0		96	93	
CARGILL	449	3X			119	24.7			0			2			0			91		
MAYGOLD	2095	3X		137	119	24.7	24.4		0	1		1	3		0	0		91	93	
*ACCO	UC3301	SX	132	145	137	24.7	24.3	25.5	0	1	1	1	3	2	0	0	0	91	92	90
TROJAN	TX105	3X			111	24.8			3			3			0			81		
HULTING	X770	SX			122	25.0			0			2			0			74		
WILSON	1017	SX	137	141	131	25.0	23.8	23.8	0	1	0	4	11	5	0	0	0	81	90	88
EMBRO	X-2	SX			131	25.1			0			5			0			92		
CORN KING	1122	SX	128	148	130	25.1	24.8	24.5	2	1	2	1	5	2	0	0	0	92	97	91
*PAG	7316	3X			112	25.1			0			3			0			90		
WILSON	516	MS	127	138	123	25.2	23.9	23.4	0	1	1	6	9	3	0	0	0	92	95	89
CURRY	SC144	SX		148	107	25.3	24.5		1	0		1	3		0	0		78	94	
*DEKALB	XL43	SX			110	25.3			0			2			0			83		
ACCO	U348	3X		138	110	25.4	25.2		0	4		3	6		0	0		90	91	
*PIONEER	3571	MS	139	143	130	25.4	25.5	28.1	0	0	1	4	1	3	0	0	0	84	87	88
IOWA STATE UNIV	SX13(B37XB70)	SX			137	25.5			0			5			0			87		
PIONEER	3520	3X			115	25.5			0			2			0			85		
*PAG	SX53	SX		140	111	25.5	25.4		0	3		5	4							

TABLE 2. AVERAGE PERFORMANCE OF VARIETIES TESTED IN DISTRICT 1.
HIGH POPULATION - 25,850 PLANTING RATE. LSD FOR 1973 YIELD IN BUSHELS IS 15.

BRAND	VARIETY	CROSS	YIELD BU./A			MOISTURE PCT.			ROOT LODGING PCT.			STALK LODGING PCT.			DROPPED EARS PCT.			STAND PCT.		
			1971	1972	1973	1973	1972	1971	1973	1972	1971	1973	1972	1971	1973	1972	1971	1973	1972	1971
SAR	SX95A	SX			126	18.9			0			1			0			85		
MOEWS	WM220	SX			109	19.9			0			6			0			79		
RENK	RK6	SX		127	102	20.1	18.9		0	5		4	5		0	0		83	84	
TROJAN	TX592	SX			86	20.2			0			0			0			75		
MOEWS	SM220	SX	130	135	108	20.5	19.6	18.8	0	1	0	10	17	5	0	0	0	76	89	82
TROJAN	TX594	SX			114	20.7			0			10			0			89		
IOWA STATE UNIV	SX29(A632XA659)	SX			133	20.9			1			3			0			82		
IOWA STATE UNIV	SX11(A632XA257)	SX			114	20.9			0			21			0			80		
MOEWS	SM223	SX			127	20.9			0			3			0			85		
FUNK'S	G4343	SX			134	21.1			0			9			0			88		
ASGROW	RX53	SX			120	21.2			0			3			0			87		
*PIONEER	3784	SX			109	21.4			0			6			0			89		
TROJAN	TX599	SX		133	104	21.5	19.4		1	2		0	1		0	0		83	87	
IOWA STATE UNIV	SX28(A239XA631)	SX			129	21.5			0			6			0			87		
WILSON	1105	SX			87	21.7			0			1			0			74		
TROJAN	TX100	3X			133	21.7			0			3			0			87		
EMBRO	X-1	SX			121	21.8			0			2			0			93		
SAR	SX122	SX			126	22.0			0			2			0			84		
*PIONEER	3773	SX	101	130	119	22.3	20.3	24.6	0	0	0	10	18	2	0	0	1	86	88	83
FUNK'S	G4404	SX			154	22.4			0			10			0			86		
PIONEER	3764	3X			110	22.5			0			0			0			80		
RENK	RK11AA	SX			134	22.5			0			7			0			87		
*PIONEER	3780	SX		143	133	22.7	20.9		1	0		2	4		0	0		87	88	
PIONEER	3596	MS			145	22.8			0			1			0			89		
IOWA STATE UNIV	SX30(A632XOH551)	SX			145	22.9			1			2			0			90		
FUNK'S	216191	SX			141	23.0			0			4			0			86		
ASGROW	RX60	SX			141	23.1			0			10			0			93		
FUNK'S	G4366	SX			145	23.2			1			6			0			84		
*SAR	SX200	SX	150	153	139	23.4	23.9	23.2	0	1	4	3	4	1	0	0	0	86	91	84
FEDERAL	FX6	SX			138	23.6			0			10			1			89		
END	SX14	SX		145	137	23.6	24.7		0	7		3	8		0	0		85	94	
NC+	335X	SX	143	155	150	23.6	24.5	22.9	0	4	3	1	7	2	0	0	0	88	87	82
*FUNK'S	G4444	SX	137	147	141	23.7	25.0	23.7	0	6	5	1	3	1	0	0	0	89	86	88
*O'S GOLD	SX1100	SX	142	140	128	23.7	24.5	21.7	1	5	0	3	5	2	0	0	0	90	92	84
HULTING	X537	SX			143	23.7			0			6			0			88		
MAYGOLD	F23	SX			129	23.8			0			2			0			92		
MAYGOLD	2095	3X		128	135	23.9	24.4		0	4		3	8		0	0		88	89	
ACCO	UC4561	SX		145	124	23.9	23.6		0	0		9	10		1	0		91	83	
*FUNK'S	G4384A	SX			132	24.1			0			9			0			82		
PIONEER	3722	SX			123	24.1			0			0			0			87		
*SAR	SX132A	SX	139	151	127	24.2	24.8	23.4	1	2	2	2	4	2	0	0	1	87	93	80
*ACCO	UC3301	SX	139	147	142	24.2	24.3	24.9	1	2	2	1	7	4	0	0	0	91	92	84
*PIONEER	3571	MS	136	154	149	24.2	24.2	28.3	0	0	0	3	4	3	0	0	0	83	87	86
CARGILL	875	SX			146	24.3			1			8			0			88		
CURRY	TC343	3X			123	24.3			0			3			0			83		
*DEKALB	XL22	SX		156	135	24.3	24.8		0	6		2	6		0	0		87	88	
*CURRY	SC142	SX	137	155	136	24.3	25.6	23.7	0	7	5	2	5	2	0	0	0	87	92	84
COOP	S201	SX	125	151	145	24.4	24.6	22.4	0	4	4	3	3	1	0	0	0	87	85	79
END	3X35	3X		143	129	24.4	24.5		0	8		4	7		0	0		87	90	
*NORTHROP KING	PX50A	SX		146	144	24.4	25.6		0	0		4	9		0	0		90	89	
WILSON	1016	SX	139	147	128	24.5	25.3	23.1	0	7	1	4	5	3	0	0	0	84	86	81
*CARGILL	870	SX		146	142	24.5	24.2		1	4		4	10		0	0		85	91	
*FARMERS	4425XL	MS		143	127	24.5	24.6		1	4		2	11		0	0		76	87	
CURRY	TC342	3X			123	24.6			0			3			0			85		
*TROJAN	TXS108A	SX			144	24.7			0			1			0			77		
IOWA STATE UNIV	SX13(B37X870)	SX			156	24.7			2			13			1			86		
CARGILL	449	3X			128	24.7			0			2			0			85		
*TROJAN	TXS102	SX	148	146	132	24.8	24.4	22.9	2	3	8	4	7	3	0	0	0	81	89	86
MOEWS	SM229	SX	127	141	137	24.8	25.3	24.5	0	7	5	1	16	2	0	0	0	86	85	86
EMBRO	X-2	SX			138	24.8			0			2			0			83		
CORN KING	1122	SX	136	143	141	24.9	25.3	24.1	0	5	5	0	5	4	0	0	0	91	91	86
*ASGROW	RX58	SX		158	131	24.9	25.4		0	8		4	3		0	0		84	89	
*CROWS	226	SX	125	144	146	24.9	24.9	23.9	0	3	5	3	7	3	0	0	0	91	88	81
O'S GOLD	SX2102	MS			126	24.9			0			4			0			82		
ACCO	UC3201	SX		142	123	25.0	24.9		0	3		3	7		0	0		85	85	
*PAG	SX69	SX		144	144	25.0	25.1		0	7		7	10		0	0		87	87	
*FARMERS	4525XL	SX			138	25.1			0			1			0			88		
TROJAN	TX105	3X			123	25.1			0			7			0			81		
WILSON	516	MS	138	138	135	25.1	23.4	23.5	0	2	1	6	11	3	0	0	0	95	87	84
*PAG	7316	3X			115	25.1			0			5			0			93		
TROJAN	TXS111	SX		153	155	25.2	25.4		0	1		1	10		0	0		82	87	
HULTING	X770	SX			135	25.2			0			10			0			73		
SAR	SX252A	SX		138	141	25.2	24.1		0	3		1	6		0	0		84	86	
CURRY	SC144	SX		142	141	25.3	23.6		1	3		1	8		0	0		87	83	
ACCO	U344	3X		126	119	25.3	22.3		0	0		2	9		0	0		87	83	
*DEKALB	XL43	SX			127	25.4			0			2			0			79		
IOWA STATE UNIV	SX9(A619XB59)	SX			143	25.4			0			26			0			85		
ACCO	U348	3X		136	117	25.5	25.7		1	12		6	5		0	0		84	87	
WILSON	2317	MS			147	25.5			1			2			0			80		
*NORTHROP KING	PX610	3X		144	120	25.6	25.9		0	1		2	10		0	0		80	86	
ACCO	UC5801	SX			132	25.6			1			7			1			82		
WILSON	1017	SX	132	144	143	25.7	24.5	23.2	0	1	0	4	14	4	0	0	0	82	84	87
PIONEER	3520	3X			136	25.7			0			2			0			84		
*DEKALB	XL45A	SX	134	137	120	25.9	25.5	26.8	0	3	4	4	8	1	0	0	0	90	87	85
TROJAN	TX111	3X			134	26.1			0			8			0			78		
ACCO	EXP4201	SX			130	26.1			0			6			0			90		
IOWA STATE UNIV	SX16(A619XR182)	SX			159	26.2			0			0			0			95		
CORN KING	1127	SX			142	26.3			0			13			0			80		
FUNK'S	G4567	3X			132	26.3			1			3			0			76		
O'S GOLD	SX2145	SX			120	26.4			0			5			0			87		

1973 Field Data

The District 1 test was conducted on farms operated by William Morris near Sheldon in Sioux County and by Ray Paulsen near Everly in Clay County. The field data are presented in Table A.

Subsoil moisture was favorable and above normal at planting time. Rainfall was normal during May and July and below normal during June and early August. Temperatures were below normal during May and July and above normal during June.

Table A. Field Data.

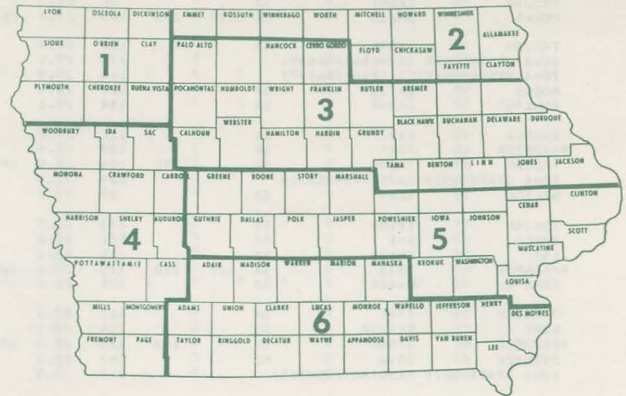
	Morris Farm Marcus silty clay foam			Paulsen Farm Primghar silty clay loam		
Fertilizer applied, lbs.	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
Plowdown.	31	80	40	100	60	80
Preplant.	99	--	--	--	--	--
TOTAL.	130	80	40	100	60	80
1972 crop.	Soybeans			Soybeans		
Row width.	30 inches			30 inches		
Planting date.	May 3			May 4		
Harvest date.	October 17			October 19		

District 1

Designations Identifying Brands in the Yield Test

Designation	Name and Address
ACCO.	ACCO Seed Div. of Anderson, Clayton & Co., Belmond, Ia. 50421
Asgrow.	Asgrow Seed Co., Des Moines, Ia. 50310
Cargill.	Cargill, Inc., Minneapolis, Minn. 55402
COOP.	Farmland Industries, Inc., Kansas City, Mo. 64116
Corn King.	Malcolm H. Grieve, Pierson, Ia. 51048
*Crow's.	Crow's Hybrid Corn Co., Milford, Ill. 60953
Curry.	Curry Seed Co., Elk Point, S.D. 57025
*DeKalb.	DeKalb Ag. Research, Inc., DeKalb, Ill. 60115
Embro.	Ramy Seed Co., Mankato, Minn. 56001
Eno.	Eno Farms, Inc., Sheffield, Ia. 50475
Farmers.	Farmers Hybrid Companies, Inc., Hampton, Ia. 50441
Federal.	Federal Hybrids, Marion, Ia. 52302
Funks.	Funk Seeds International, Inc., Bloomington, Ill. 61701
Hulting.	Hulting Hybrids, Div. of Ferry-Morse, Geneseo, Ill. 61254
Iowa State Univ.	Department of Agronomy, Iowa State Univ., Ames, Ia. 50010
Maygold.	Earl May Seed & Nursery Co., Shenandoah, Ia. 51601
Moews.	The Moews Companies, Granville, Ill. 61326
NC+.	NC+ Hybrids, Lincoln, Neb. 68504
*Northrup King.	Northrup King & Co., Minneapolis, Minn. 55413
O's Gold.	O's Gold Seed Co., Parkersburg, Ia. 50665
PAG.	PAG Seeds, Minneapolis, Minn. 55402
Pioneer.	Pioneer Hi-Bred International, Inc., Des Moines, Ia. 50308
Renk.	Renk Seed Co., Sun Prairie, Wis. 53590
SAR.	Sar Seed Farms, Charles City, Ia. 50616
Trojan.	Trojan Seed Co., Olivia, Minn. 56277
Wilson.	Wilson Hybrids, Inc. Harlan, Ia. 51537

*Widely grown entry made by Iowa State University.



OTHER REPORTS

Separate reports for variety performance are available for each district shown in fig. 1. These publications are available at your county extension office or from Publications Distribution, Printing and Publications Building, Iowa State University, Ames, Iowa 50010.

The 1973 Iowa Corn Yield Test Report -

Pm-580-1	District 1
Pm-580-2	District 2
Pm-580-3	District 3
Pm-580-4U	District 4 Upland
Pm-580-4B	District 4 Bottomland
Pm-580-5	District 5
Pm-580-6	District 6

... AND JUSTICE FOR ALL

Programs and activities of Cooperative Extension Service are available to all potential clientele without regard to race, color, sex or national origin.

